

10/525830

**Amendments to the Claims:**

DT01 Rec'd PCT/PTC 25 FEB 2005

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1.-17. (Canceled)

18. (New) A honeycomb structure, comprising:

a cell structure section including a plurality of cells partitioned by a plurality of partition walls; and

an outer circumferential wall section surrounding the cell structure section;

wherein the cell structure section includes a first partition wall group having the partition walls positioned in parallel, and a second partition wall group having the partition walls which intersect the partition walls of the first partition wall group at right angles and are positioned in parallel, each of the partition walls connecting two different locations of the outer circumferential wall section through one continuous plane;

wherein partition wall intervals of each of the partition wall groups positioned in parallel are varied stepwise in at least a part of the cell structure section, and at least some of the cells have a rectangular cross-sectional shape; and

wherein all the partition walls have such a ratio of a cell side length to a partition wall thickness that the partition wall can withstand pressure during canning.

19. (New) The honeycomb structure according to claim 18, wherein a square of the ratio of the cell side length to the partition wall thickness ((cell side length/partition wall thickness)<sup>2</sup>) of the partition walls of the cell structure section is 1,000 or less.

20. (New) The honeycomb structure according to claim 18, wherein a flattening ratio (long side length/short side length) of the cells in the cell structure section is 2.0 or less.

21. (New) The honeycomb structure according to claim 18, wherein the partition wall intervals of the first partition wall group are varied at a different pattern or size relative to the partition wall intervals of the second partition wall group.

22. (New) The honeycomb structure according to claim 18, wherein the partition wall intervals are varied geometrically in a region in which the partition wall intervals are varied stepwise.

23. (New) The honeycomb structure according to claim 18, wherein the partition wall intervals are varied arithmetically in a region in which the partition wall intervals are varied stepwise.

24. (New) The honeycomb structure according to claim 18, wherein a partition wall interval variation ratio ( $(| \text{next partition wall interval} - \text{reference partition wall interval} | / \text{reference partition wall interval})$ ) is 0.5 or less in a region in which the partition wall intervals are varied stepwise.

25. (New) The honeycomb structure according to claim 18, wherein the cells are alternately plugged on either end face.

26. (New) The honeycomb structure according to claim 18, wherein a catalyst

component is loaded on a surface and/or inside of the partition wall.

27. (New) The honeycomb structure according to claim 18, wherein an adsorbent component is loaded on a surface and/or inside of the partition wall.

28. (New) The honeycomb structure according to claim 18, wherein a catalyst component and an adsorbent component are loaded on a surface and/or inside of the partition wall.

29. (New) An exhaust gas purification converter, comprising the honeycomb structure according to claim 18.

30. (New) A die for forming a honeycomb structure, the die comprising:  
lattice-shaped slits which are open on one face of a die substrate; and  
a plurality of holes which are open on an opposite face of the die substrate, each of the holes introducing a raw material into a specific region of the lattice-shaped slits;  
wherein open slit areas per unit lattice are varied stepwise in at least some of the lattice-shaped slits;  
the die including a structure which varies flow rates of the raw material introduced into regions having different open slit areas per unit lattice at a ratio substantially equal to a variation ratio of the open slit areas.

31. (New) The die for forming a honeycomb structure according to claim 30, wherein the structure which varies the flow rates of the raw material introduced into the regions is a

structure in which at least one of intervals of the holes, inner diameters of the holes, and raw material path lengths of the holes is varied.

32. (New) A die for forming a honeycomb structure, the die comprising:  
lattice-shaped slits which are open on one face of a die substrate; and  
a plurality of holes which are open on an opposite face of the die substrate, the holes communicating with intersections of the lattice-shaped slits;  
wherein open slit areas around the intersections of the lattice-shaped slits are varied stepwise in at least some of the lattice-shaped slits;  
the die including a structure which, at a ratio substantially equal to a variation ratio of the open slit area around a next intersection adjacent to one intersection of the lattice-shaped slits to the open slit area around the one intersection (next intersection/one intersection), varies a flow rate of the raw material introduced into the next intersection from a flow rate of the raw material introduced into the one intersection.

33. (New) The die for forming a honeycomb structure according to claim 32, wherein the structure which varies the flow rate of the raw material introduced into the next intersection is a structure in which at least one of intervals of the holes, inner diameters of the holes, and raw material path lengths of the holes is varied.

34. (New) The die for forming a honeycomb structure according to claim 32, wherein the structure which varies the flow rate of the raw material introduced into the next intersection is a structure in which intervals of the holes, inner diameters of the holes, and raw material path lengths of the holes are varied.